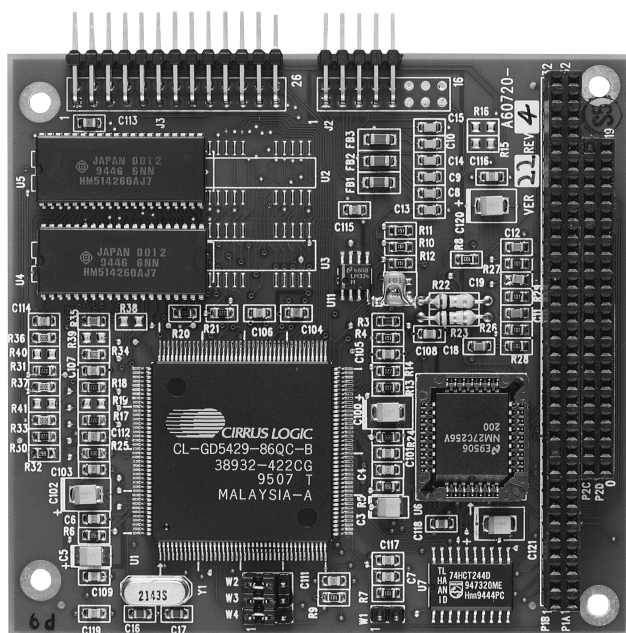


## MiniModule™ /SVG-II

High resolution CRT display controller with GUI accelerator



- Compatible with five popular PC video standards
- Supports 24-bit “true color” VGA display
- Supports DOS, Windows®, and most other popular operating systems
- Built-in GUI accelerator for high performance graphics
- Feature connector for external device connection
- Compact PC/104™ form-factor
- 16-bit PC/104 bus allows 8- or 16-bit operation
- 5-volt only operation
- Low power, rugged, and reliable
- Wide operating temperature range

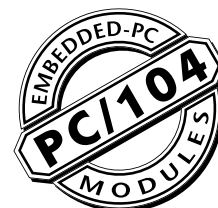
The MiniModule/SVG-II expansion module is a high resolution analog CRT display controller that offers full software compatibility with five popular video standards — VESA (super VGA), VGA, EGA, CGA, and MDA. With its full one megabyte of display memory populated, the module supports high resolution “super VGA” graphics, up to 1024 × 768 pixels in 256 colors and 640 × 480 pixels in 16M colors. The MiniModule/SVG-II also includes a built-in graphical user interface (GUI) accelerator engine for optimal Windows performance.

The MiniModule/SVG-II drives analog CRT monitors directly. In addition, the module’s VESA feature connector

interface allows direct connection of certain electroluminescent (EL) display panels and supports a number of specialized video input and output interfaces.

The MiniModule/SVG-II is supported by virtually all operating systems, drivers, utilities, and applications for both text and graphics because of its register- and BIOS-level compatibility with nearly all standard PC video controllers. “Super VGA” software development is greatly simplified by the module’s VESA-enhanced video BIOS, which supports the high resolution display modes beyond normal VGA.

The MiniModule/SVG-II complies with the PC/104 16-bit form-factor specification and is jumper-configurable to operate with either 8- or 16-bit PC/104 compatible CPUs. This allows it to be used with any Ampro CoreModule™ or Little Board™ CPU.



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## SPECIFICATIONS

### GENERAL

- Onboard display RAM (soldered): 512 K bytes, standard; 1 M byte, special order
- Modes and resolutions supported: see Table 1
- Memory required vs. resolution: see Table 1
- Option of interlaced or non-interlaced displays in 1024 x 768 resolution modes
- Memory-mapped I/O VGA GUI accelerator
- 24-bit "true color"
- Feature connector with VESA standard pinout
- Onboard video BIOS supports standard VESA "super VGA" modes (see Table 1)
- Compatible with 8-bit and 16-bit Ampro CPUs

### MECHANICAL AND ENVIRONMENTAL

- Size: 3.6 x 3.8 x 0.9\* in. (90 x 109 x 23 mm)  
\* Includes stackthrough pins. See PC/104 Specification for stacking and other dimensions.
- PC/104:
  - 16-bit double-stackthrough bus
  - Four mounting holes
- Power requirements (typical):
  - 350 mA at +5V ± 5%
- Operating environment:
  - 0° to +70° C temperature, standard; extended temperature screening available by special order
  - 5% to 95% relative humidity, non-condensing
- Storage temperature: -55° to +85° C
- Weight: 2.2 oz. (62 gm)

NOTE: Contact Ampro regarding custom configurations and special order options.

Table 1. Video Modes and RAM Required

VIDEO STANDARD	MAXIMUM RESOLUTION	MAXIMUM COLORS DISPLAYED	VIDEO RAM REQUIRED* (BYTES)
CGA Graphics	320 x 200 640 x 200	4 2	512 K 512 K
CGA Text	640 x 200	16	512 K
MDA	720 x 350	Mono	512 K
Hercules	Not supported		
EGA	640 x 350	16	512 K
VGA	320 x 200 640 x 480	256 16	512 K 512 K
VESA	640 x 480 640 x 480 640 x 480 800 x 600 1024 x 768 800 x 600 1024 x 768 1024 x 768 *** 1280 x 1024 ***	256 32 K / 64 K 16 M ** 256 16 32 K / 64 K 256 32 K / 64 K 16 / 256	512 K 1 M 1 M 512 K 512 K 1 M 1 M 1 M 1 M
<b>NOTES</b> * All video RAM is factory-installed (soldered onboard); 512K is standard, 1MB is available by special order ** 24-bit "true color" *** Interlaced only			

## ORDERING INFORMATION

When ordering, refer to the following model numbers:

- **MM2-SVG-K-71** Development Kit, MiniModule/SVG-II, 512 K RAM, DST bus
- **MM2-SVG-Q-71** MiniModule/SVG-II, 512 K RAM, DST bus (Quantity Orders)
- **MM2-SVG-Q-72** MiniModule/SVG-II, 1 M RAM, DST bus (Quantity Orders - special order only)
- **MM2-SVG-Q-73** MiniModule/SVG-II, 512 K RAM, DST bus (for CM/PC only)

The Development Kit includes the MiniModule/SVG-II, interface cables, and technical manual. Quantity orders include only the module.

NOTE: 1MB video RAM versions available by special order only.

Please contact your local Ampro representative or Ampro Sales Administration for ordering information.